

Abstract

A capacitive amplifier is described for detecting and amplifying an electrical tone conducted by one of a group of wires or a pair of wires in order to identify and trace a particular wire or pair of wires. The capacitive amplifier comprises a probe for being placed adjacent a wire under test, an input terminal coupled to the conductive probe for receiving an input signal therefrom, a suppression unit coupled to the input terminal for receiving the input signal and for suppressing the noise signals, and an amplifier coupled to the suppression unit to amplify the noiseless output signal. The suppression unit can be composed of an analog/digital converter, a digital/analog converter, a CPU and a memory for suppressing noise frequencies contained in the digital signal values by subtracting from the input signal a time-delayed signal, wherein the time-delay period corresponds to the period of the unwanted noise frequency. A tone generator is also described which can be used in conjunction with the capacitive amplifier.